

550,515

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number
WO 2004/085902 A1

(51) International Patent Classification⁷: **F16L 23/024**, C23C 14/34, 14/35, H01J 37/34

(21) International Application Number:
PCT/EP2004/050188

(22) International Filing Date: 23 February 2004 (23.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03100767.7 25 March 2003 (25.03.2003) EP

(71) Applicant (for all designated States except US):
BEKAERT VDS N.V. [BE/BE]; E-3-Laan 75-79, B-9800 Deinze (BE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **DE BOSSCHER, Wilmert [BE/BE]; Noordhoutstraat 22, B-9031 Drongen (BE).**

(74) Agent: **MESSELY, Marc; Bekaertstraat 2, B-8550 Zwevegem (BE).**

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

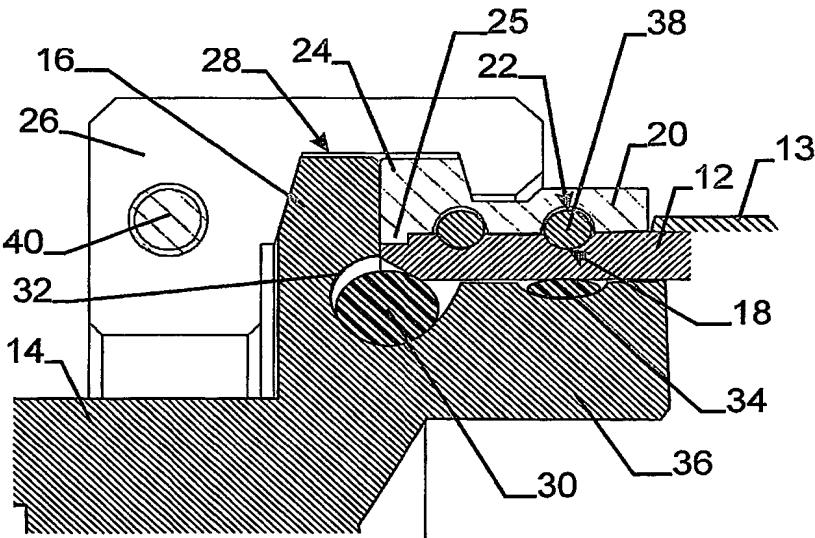
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: UNIVERSAL VACUUM COUPLING FOR CYLINDRICAL TARGET



(57) Abstract: A coupling system (10) to releasably affix a cylindrical target (12) to a spindie (14) comprises the following parts: a) a spindie (14) terminating in a flange portion (16); b) a cylindrical target (12) having at its end a grooved outside circumferential surface (18); c) an interface ring (20) having a circumferential inner or outer surface (22) adapted to engage respectively with the grooved outside or inside circumferential surface (22) of the cylindrical target (12); d) a clamping ring (26) adapted to engage at its one side with the flange portion (16) and to engage radially at its other side with the interface ring (20) to hold the cylindrical target (12) to the spindie (14); e) one or more sealing rings (30) between the spindie (14) and the cylindrical target (12). The interface

ring (20) makes it possible to use particular types of cylindrical targets (12) with other types of spindles (14).